

4.11 TRANSPORTATION AND CIRCULATION

Based on the findings of the Initial Study (IS), the proposed West Gateway Project has the potential to have a significant adverse effect on transportation and circulation. The analysis is based on a traffic study prepared by Meyer, Mohaddes Associates (April 2004, Rev. November 2004), which is included as Appendix G. The analysis in the following section focuses on the existing conditions in the study area, the analysis methodology, thresholds of significance, and the potential transportation impacts of the proposed West Gateway Project. Issues found not to be significant in the IS and Section 3.0 of this EIR, such as changes in air traffic patterns, design hazards, emergency access, parking and conflicts with alternative means of transportation are not discussed here.

4.11.1 EXISTING SETTING RELATED TO TRANSPORTATION AND CIRCULATION

4.11.1.1 Scope of the Traffic Analysis

This traffic study examines existing traffic conditions, analyzes future traffic conditions, and identifies traffic impacts and potential mitigation measures for improving traffic flow and circulation.

The following scenarios were analyzed:

- Existing Conditions
- 2007 Without the Project
- 2007 With the Project
- 2010 Without the Project
- 2010 With the Project

The expected opening year is 2007 for the first phase of the project, the development of Parcels 9, 10 and 11. The year 2010 is considered full buildout of the project, the development of Parcels 2 through 7.

4.11.1.2 Study Area

A total of 36 key intersections in the vicinity of the Project site were analyzed based on consultation with the City of Long Beach. The analysis considered new vehicle trips that will result from the Project, as well as traffic growth from other development (background growth and identified related projects) in the surrounding area. The study covers local and arterial roadways serving the project site. County of Los Angeles Congestion Management Program (CMP) guidelines were also used to assess the designated CMP roadway system. Figure 4.11-1 depicts the study area, the locations of the analyzed intersections, and the location of the Project.

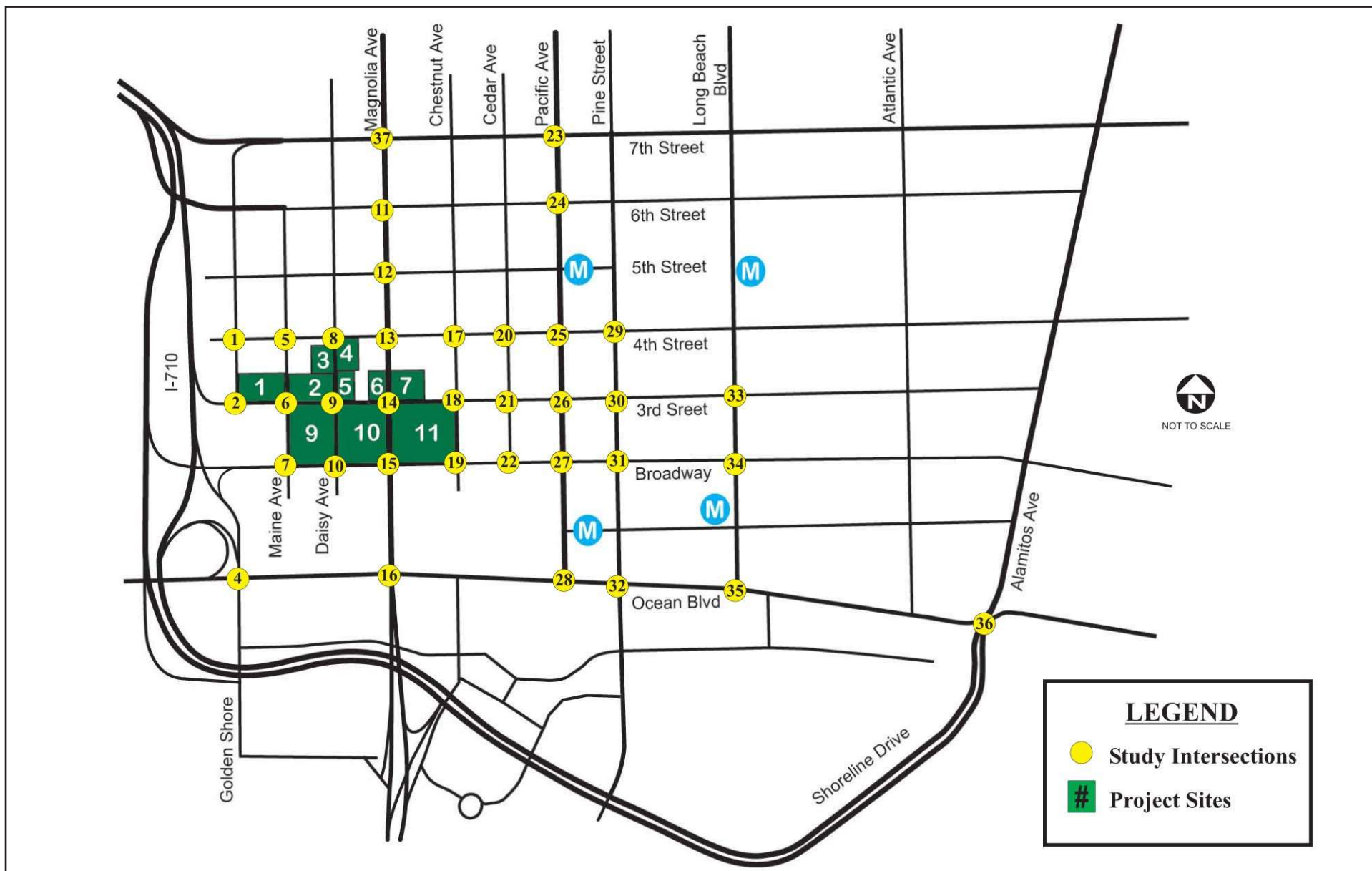


Figure 4.11-1
Study Area

The 36 study intersections are:

- 4th Street & Golden Avenue
- 3rd Street & Golden Avenue
- Ocean Boulevard & Golden Shore
- 4th Street & Maine Avenue
- 3rd Street & Maine Avenue
- Broadway & Maine Avenue
- 4th Street & Daisy Avenue
- 3rd Street & Daisy Avenue
- Broadway & Daisy Avenue
- 6th Street & Magnolia Avenue
- 5th Street & Magnolia Avenue
- 4th Street & Magnolia Avenue
- 3rd Street and Magnolia Avenue
- Broadway & Magnolia Avenue
- Ocean Blvd & Magnolia Avenue
- 4th Street & Chestnut Avenue
- 3rd Street & Chestnut Avenue
- Broadway and Chestnut Avenue
- 4th Street & Cedar Avenue
- 3rd Street & Cedar Avenue
- Broadway & Cedar Avenue
- 7th Street & Pacific Avenue
- 6th Street & Pacific Avenue
- 4th Street & Pacific Avenue
- 3rd Street & Pacific Avenue
- Broadway & Pacific Avenue
- Ocean Boulevard & Pacific Avenue
- 4th Street & Pine Avenue
- 3rd Street & Pine Avenue
- Broadway & Pine Avenue
- Ocean Boulevard & Pine Avenue
- 3rd Street & Long Beach Boulevard
- Broadway & Long Beach Boulevard
- Ocean Blvd & Long Beach Boulevard
- Shoreline Drive & Ocean Boulevard
- 7th Street & Magnolia Avenue

Of the 36 study intersections, 8 are currently controlled by stop signs. The remaining 28 study intersections are controlled by traffic signals. The eight stop-sign controlled intersections are:

- 4th Street & Golden Avenue
- 4th Street & Maine Avenue
- 3rd Street & Maine Avenue
- Broadway & Maine Avenue
- 4th Street & Daisy Avenue
- 3rd Street & Daisy Avenue
- 5th Street & Magnolia Avenue
- 4th Street & Chestnut Avenue

4.11.1.3 Key Roadway Descriptions

The following describes key roadways within the study area:

West Broadway provides direct east-west access to sites 9, 10, and 11 of the Project. It is currently classified as a major arterial between the I-710 Freeway and Alamitos Avenue in the City of Long Beach functional classification of streets system. Near the Project, West Broadway is a one-way street with three lanes in the eastbound direction. Parking is allowed along the north side of the street and the posted speed limit is 30 MPH. The average daily traffic (ADT) along West Broadway in the study area ranges between 7,900 and 15,990 vehicles per day.

West 3rd Street also provides direct east-west access to the Project with access to sites 1, 2, 5, 6, 7, 9, 10, and 11. It is currently designated as a major arterial between the I-710 Freeway and Alamitos Avenue in the City of Long Beach functional classification of streets system. Adjacent to the project site, it is one-way and provides three lanes in the westbound direction. Parking is

allowed on both sides of the roadway. The typical posted speed limit is 30 MPH. The ADT along West 3rd Street in the study area ranges between 9,500 and 13,300 vehicles per day.

Ocean Boulevard provides east-west linkage through Downtown and provides indirect access to the I-710 and I-110 freeways and eastern Long Beach. It is classified as a major arterial and provides three lanes in each direction with a raised center median. Parking is allowed on both sides of the street west of Magnolia Avenue. The ADT along Ocean Boulevard in the study area ranges between 23,300 and 47,100 vehicles per day.

Magnolia Avenue provides north-south linkage to the downtown and the Project. It is classified as major arterial south of 3rd Street and a minor arterial to the north in the City of Long Beach Transportation Element. It provides two lanes in each direction south of Broadway and one through lane in each direction to the north, with a two-way left-turn lanes and on-street parking on both sides north of Broadway. The ADT along Magnolia Avenue in the study area ranges between 7,700 and 16,000 vehicles per day.

Pacific Avenue is a north-south major arterial that provides access to the downtown area and contains the northbound portion of the MTA Blue Line transit route. Pacific Avenue has two travel lanes in each direction with no or limited on-street parking. The ADT along Pacific Avenue in the study area ranges between 4,300 and 14,000 vehicles per day.

I-710 Freeway is a north-south regional highway and provides access to the Project from the communities to the north, as well as the regional Interstate system. North of the study area it is part of the Los Angeles County Congestion Management Program's regional freeway system. The ADT along the I-710 Freeway in the study area is approximately 145,000 vehicles per day.

4.11.1.4 Site Access

As shown in Figure 4.11-2, proposed access to most of the redevelopment sites will be from the major streets with some access to the smaller sites from the adjacent minor streets where major street frontage is limited. As part of the redevelopment plan, the street frontages will be redesigned to provide more pedestrian-friendly features including wide sidewalks where they do not currently exist and narrow side streets with on-street parking and landscaped parkways. Major street treatments will include street trees and pedestrian-scaled features.

4.11.2 METHODOLOGY RELATED TO TRANSPORTATION AND CIRCULATION

4.11.2.1 Traffic Data Collection

An extensive field review was undertaken to establish existing traffic operations and conditions. This included the verification of project descriptions, trip generation rates, ambient growth factors, trip distribution patterns, study intersections to be analyzed, and any special issues to be addressed in the study of this redevelopment area. A field inventory of intersection geometries, traffic controls, and other roadway conditions was completed with assistance from the City. The existing roadway lane configurations and traffic control are illustrated in Figure 4.11-3. The status of the existing buildings and building sites within the Project site and influence area was

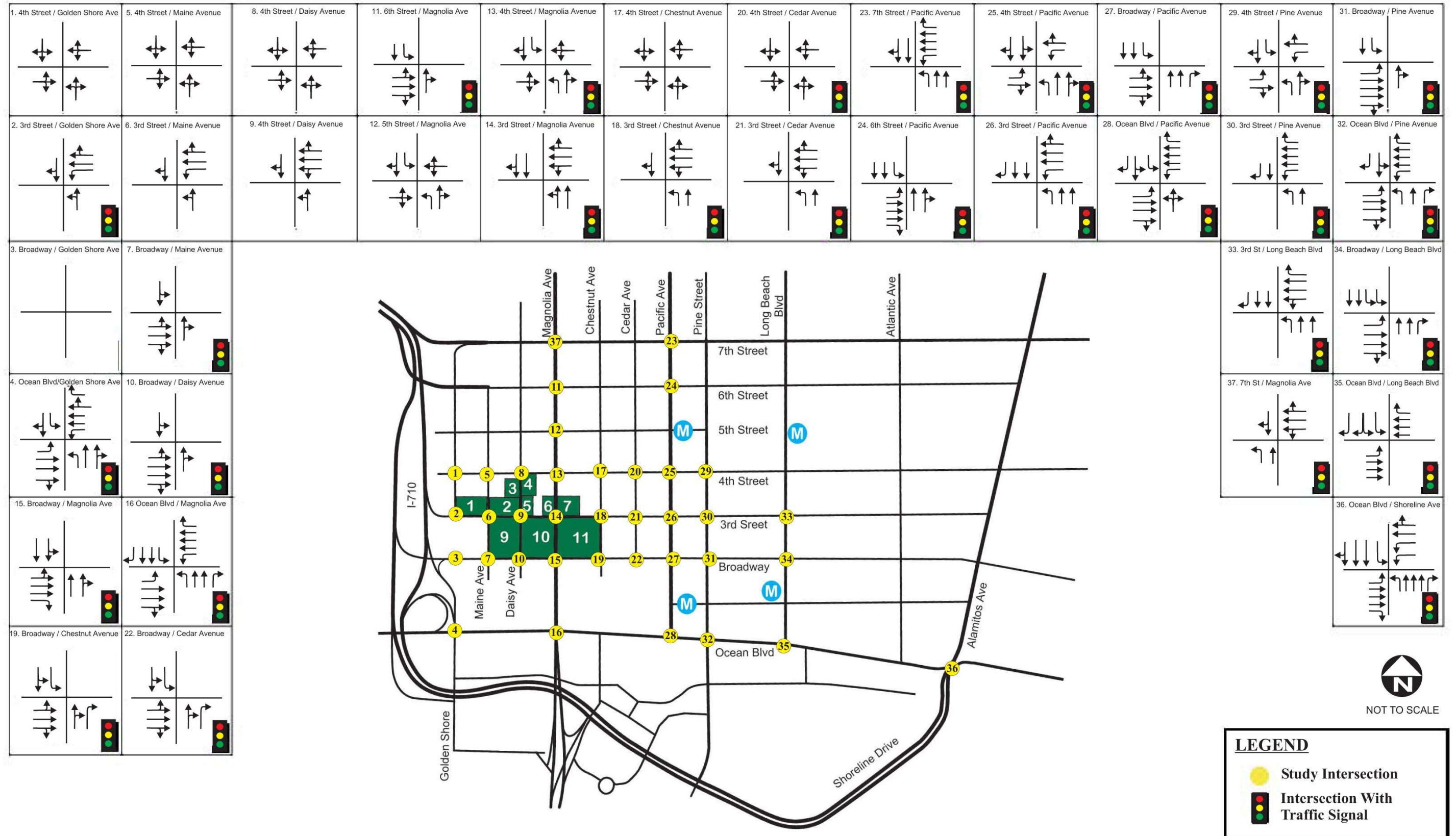


Figure 4.11-3
Existing Lane Configuration/Traffic Control

also noted. Turning movement traffic counts were collected during the morning (7-9 AM) and afternoon (4-6 PM) peak period. A summary of the existing intersections traffic volumes is illustrated in Figure 4.11-4.

4.11.2.2 Traffic Operations Analysis Methodology

Consistent with City of Long Beach guidelines for traffic impact analyses, traffic conditions in the vicinity of the project were analyzed using intersection capacity-based methodology known as the "Intersection Capacity Utilization Methodology" which is referred to hereinafter as the ICU Method.

The efficiency of traffic operations at a location is measured in terms of Level of Service (LOS). Level of service is a description of traffic performance at intersections. The level of service concept is a measure of average operating conditions at intersections during an hour. It is based on volume-to-capacity (V/C) ratio. Levels range from A to F with A representing excellent (freeflow) conditions and F representing extreme congestion. The ICU methodology compares the level of traffic during the peak hours at an intersection (volume) to the amount of traffic that intersection is able to carry (capacity). Intersections with vehicular volumes that are at or near capacity ($V/C \geq 1.0$) experience greater congestion and longer vehicle delays. Table 4.11-1 describes the level of service concept and the operating conditions expected under each level of service for signalized intersections. Analysis of unsignalized intersections is conducted differently from signalized intersections due to different operating characteristics. Stop controlled intersections were analyzed using the delay-based Highway Capacity Manual (HCM) method of determining level of service. Table 4.11-2 also describes the level of service concept for unsignalized intersection.

**TABLE 4.11-1
LEVEL OF SERVICE DEFINITIONS FOR INTERSECTIONS**

LOS	Description	ICU
A	Excellent operation – free flow.	0.00 to 0.600
B	Very good operation – stable flow, little or no delays.	0.601 to 0.700
C	Good operation – slight delays.	0.701 to 0.800
D	Fair operation – noticeable delays, queuing observed.	0.801 to 0.900
E	Poor operation – long delays, near or at capacity.	0.901 to 1.000
F	Forced flow – congestion.	Above 1.000

Source: *Highway Capacity Manual, Special Report 209, Transportation Research Board, Washington D.C., 1985 and Interim Materials on Highway Capacity, NCHRP Circular 212, 1982.*

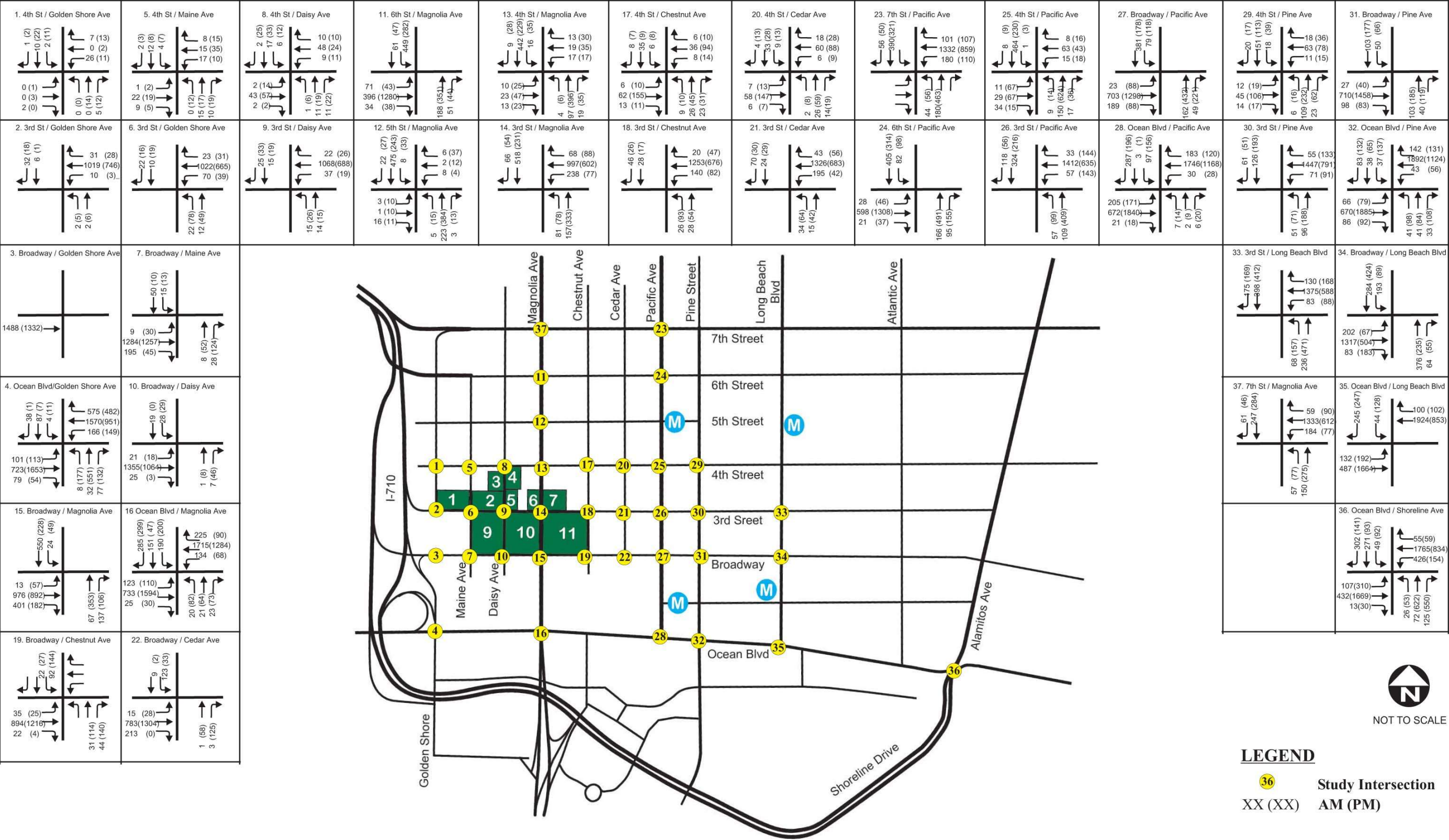


Figure 4.11-4
Existing Peak-Hour Traffic Volumes

**TABLE 4.11-2
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS**

Level of Service (LOS)	Description	Average Control Delay (seconds/veh.)
A	Very low delay. Most vehicles do not stop at the intersection.	≤ 10
B	More vehicles stop than with LOS A, causing higher delays.	> 10 and ≤ 15
C	The number of vehicles stopping becomes significant, though many still pass through the intersection without stopping.	> 15 and ≤ 25
D	The influence of congestion becomes more noticeable. Many vehicles stop and the proportion of vehicles not stopping declines.	> 25 and ≤ 35
E	Results in delay considered to be unacceptable.	> 35 and ≤ 50
F	Considered unacceptable to most drivers, often occurs with oversaturation, when arriving traffic exceeds the capacity at the intersection.	> 50

Source: *Highway Capacity Manual*, 2000.

4.11.2.3 Existing Intersection Operations

AM and PM peak-hour LOS analyses were conducted for the 36 study intersections based on the measured traffic volumes, geometries, signal timings, and the previously described methodologies. All intersection analyses are performed using the TRAFFIX (Traffic Impact Analysis) software program. The existing conditions level of service analyses results are summarized in Table 4.11-3.

LOS D is generally considered to be the lowest acceptable LOS in an urban or suburban area. LOS E and F are considered to be unacceptable operating conditions that warrant mitigation. The results, shown in Table 4, indicate that only one of the 36 study intersections are currently operating at LOS E or F during either the AM or PM peak hour or both. The remaining 34 intersections currently operate at LOS D or better. The intersection that currently operates at a poor service levels is Broadway and Maine Avenue, although Shoreline Drive and Ocean Boulevard operates at LOS d for both AM and PM peak hours.

4.11.2.4 Assumptions

Opening Year

The expected opening year of the West Gateway for purposes of this analysis is of 2007 when the construction of the first phase is anticipated to be complete.

**TABLE 4.11-3
EXISTING INTERSECTION OPERATING CONDITIONS**

<i>Intersection</i>		Existing					
		AM Peak Hour			PM Peak Hour		
		<i>LOS</i>	<i>Avg Vehicle Delay</i>	<i>V/C Ratio</i>	<i>LOS</i>	<i>Avg Vehicle Delay</i>	<i>V/C Ratio</i>
1	4th Street & Golden Avenue	A	7.1	0.055	A	7.0	0.043
2	3rd Street & Golden Avenue	A	--	0.442	A	--	0.283
3	Ocean Boulevard & Golden Shore	A	--	0.467	C	--	0.778
4	4th Street & Maine Avenue	A	7.1	0.056	A	7.2	0.074
5	3rd Street & Maine Avenue	C	21.5	0	C	20.0	0
6	Broadway & Maine Avenue	F	64.3	0	E	37.5	0
7	4th Street & Daisy Avenue	A	7.2	0.063	A	7.6	0.1
8	3rd Street & Daisy Avenue	D	28.3	0	B	14.8	0
9	Broadway & Daisy Avenue	A	--	0.252	A	--	0.237
10	6th Street & Magnolia Avenue	A	--	0.405	A	--	0.576
11	5th Street & Magnolia Avenue	B	14.1	0	C	16.5	0
12	4th Street & Magnolia Avenue	A	--	0.354	A	--	0.398
13	3rd Street and Magnolia Avenue	A	--	0.585	A	--	0.409
14	Broadway & Magnolia Avenue	A	--	0.454	A	--	0.385
15	Ocean Boulevard & Magnolia Avenue	B	--	0.657	B	--	0.645
16	4th Street & Chestnut Avenue	B	10.2	0	B	11.4	0
17	3rd Street & Chestnut Avenue	A	--	0.414	A	--	0.270
18	Broadway & Chestnut Avenue	A	--	0.265	A	--	0.424
19	4th Street & Cedar Avenue	A	--	0.107	A	--	0.180
20	3rd Street & Cedar Avenue	A	--	0.471	A	--	0.254
21	Broadway & Cedar Avenue	A	--	0.268	A	--	0.364
22	7th Street & Pacific Avenue	B	--	0.615	A	--	0.496
23	6th Street & Pacific Avenue	A	--	0.406	B	--	0.691
24	4th Street & Pacific Avenue	A	--	0.377	A	--	0.440
25	3rd Street & Pacific Avenue	B	--	0.639	A	--	0.451
26	Broadway & Pacific Avenue	A	--	0.464	B	--	0.677
27	Ocean Boulevard & Pacific Avenue	C	--	0.711	A	--	0.584
28	4th Street & Pine Avenue	A	--	0.216	A	--	0.333
29	3rd Street & Pine Avenue	A	--	0.451	A	--	0.362
30	Broadway & Pine Avenue	A	--	0.315	A	--	0.591
31	Ocean Boulevard & Pine Avenue	A	--	0.537	B	--	0.667
32	3rd Street & Long Beach Boulevard	B	--	0.665	A	--	0.522
33	Broadway & Long Beach Boulevard	B	--	0.639	A	--	0.432
34	Ocean Boulevard & Long Beach Boulevard	A	--	0.594	B	--	0.663
35	Shoreline Drive & Ocean Boulevard	D	--	0.868	D	--	0.899
36	7th Street & Magnolia Avenue	A	--	0.585	A	--	0.441

Note: At the time the traffic volumes were gathered, 3rd and Maine and 3rd and Broadway were unsignalized. These intersections are now signalized and the analysis later in this Section reflects that fact.

Source: City of Long Beach West Gateway Redevelopment Traffic Impact Report, Meyer, Mohaddes Associates (April 2003, Rev. November 2004).

Background Traffic Growth Rates

Ambient growth is regional background growth from development and growth located outside the study area and increased activity at current development with the study area. Based on discussions with the City of Long Beach staff, an annual background growth rate of 1.00 percent was factored into the future traffic volumes.

Growth From Cumulative Related Projects

In addition, there are adjacent projects in the downtown area generating AM and PM trips impacting the study area.

The City provided a list of pending and approved building areas within the influence area. It was recognized that additional traffic growth occurred from related development projects adjacent to the study area including apartments, condominiums, hotels, theatres, shopping centers, clubs, and restaurants. The City provided a list of 18 new development and redevelopment projects in the general area. The list also provided key information concerning the location, number of units or square footage, and percent complete for each project. For this analysis, all related projects were assumed to be completed by the Year 2007.

Morning and evening peak-hour trip estimates for these related projects were developed based on rates published in the Institute of Transportation Engineer's publication *Trip Generation*, 6th Edition. The trip generation rate for the Broadway School was developed based on information published in the Caltrans 11th Progress Report on Trip Generation as suitable rates were not available in the ITE manual.

Adjustments were included for pass-by and diverted/linked trips based on information in the ITE publication and rates developed for other developments in downtown Long Beach. While transit access to all of the downtown sites is available, an explicit reduction in trips for transit use was not included. This is because the overall use of transit in the area could not be defined and the trip rates for uses such as apartments in the ITE manual include the use of transit in their calculations. Therefore, the trip estimates may be considered a worst-case projection. Table 4.11-4 presents a summary the number of AM and PM trips generated from the related projects. A total of 1,404 AM and 3,181 PM trips will be generated by the related developments in the study area. The routes people will use traveling to and from the related project sites was determined based on the patterns of existing area traffic for similar types of developments and on patterns listed in previous traffic studies for the area. The trips generated by the related projects were assigned to the area street system based on this directional distribution.

TABLE 4.11-4
RELATED PROJECT DEVELOPMENT TRIP GENERATION

Related Projects	Location	Pending/Approved Projects					Land Use Types	ITE Rate Type & In/Out Percentages								ITE Trip Generation Rate/Development Generated Trips											Complete and Occupied (a)	Reduction for Pass-By and Diverted Linked Trips (%)		Total Trips											
		Apt. Units	Condo Units	Hotel Rooms	Retail Sq. Ft. (1000)	Students		ITE Rate Code	AM		PM		ITE Rate Code	AM		PM		AM ITE Rate					Total AM Trips	PM ITE Rate					Total PM Trips	Retail - PM	Restaurant - PM	AM			PM						
									In	Out	In	Out		In	Out	In	Out	Apts	Condos	Rooms	Sq Ft	Students		Apts	Condos	Rooms		Sq Ft				Students	Total Trips	Ins	Outs	Total Trips	Ins	Outs			
1.) 100 E. Ocean Blvd	100 E. Ocean Blvd	151					Apartment		221	20%	80%	66%	34%						0.47					71	0.58					88	No			71	14	57	88	58	30		
2.) Promenade - Lyon	Promenade site between Broadway and 3rd Street	112			18		Apartment	Retail	221	20%	80%	66%	34%	820	61%	39%	48%	52%	0.47				1.03		71	0.58			3.74		131	No	34%		71	22	49	131	75	57	
3.) Ocean Villas	350 E. Ocean Blvd.	556					Apartment		221	20%	80%	66%	34%						0.47					261	0.58					322	No			261	52	209	322	213	110		
4.) Insurance Exchange	The Promenade at Broadway		11		12		Condo	Retail	231	25%	75%	57%	43%	820	61%	39%	48%	52%		0.66			1.03		19		0.83		3.74		52	No	34%		19	9	10	52	26	26	
5.) Broadway Lofts	224 - 248 E. Broadway (southwest corner of Broadway / Long Beach Blvd)		50		12		Condo	Retail	231	25%	75%	57%	43%	820	61%	39%	48%	52%		0.66			1.03		45		0.83		3.74		86	No	34%		45	16	30	86	45	41	
6.) Promenade - Greystone	East side of Promenade between 1st Street & Broadway	62			9		Apartment	Retail	221	20%	80%	66%	34%	820	61%	39%	48%	52%	0.47				1.03		39	0.58			3.74		71	No	34%		39	12	27	71	41	31	
	Promenade - Olson	97			10		Apartment	Retail	221	20%	80%	66%	34%	820	61%	39%	48%	52%	0.47				1.03		56	0.58			3.74		94	No	34%		56	15	40	94	55	39	
7.) City Place Retail	3rd St. on south, Pine on west, 6th St. on north, and Elm St. on east				454		Retail		820	61%	39%	48%	52%										1.03		468				3.74		1,698	Yes	34%		0	0	0	0	0	0	
City Place Residential	3rd St. on south, Pine on west, 6th St. on north, and Elm St. on east	38					Apartment		221	20%	80%	66%	34%						0.47					18	0.58					22	No			18	4	14	22	15	7		
8.) PCS Apartments	5 sites within CityPlace between Long Beach Blvd. & Pine Ave	221					Apartment		221	20%	80%	66%	34%						0.47					104	0.58					128	80%			21	4	17	26	17	9		
9.) City Place Lofts	4th Street and Elm Ave	72					Apartment		221	20%	80%	66%	34%						0.47					34	0.58					42	No			34	7	27	42	28	14		
10.) Lofts on 4th	Southwest corner of 4th / Alamitos Ave	34			6		Apartment	Retail	221	20%	80%	66%	34%	820	61%	39%	48%	52%	0.47				1.03		23	0.58			3.74		44	No	34%		23	7	15	44	25	19	
11.) Pike - Theatre	Shoreline Drive and Pine Ave				79		Theater		444	0%	0%	64%	36%									0.00		-				3.80		298	50%			0	0	0	149	95	54		
	Pike - Night Club				35		Night Club		836	0%	0%	66%	34%									0.00		-				11.54		406	No		43%	0	0	0	231	153	79		
	Pike - Restaurant				116		Restaurant		832	52%	48%	60%	40%									0.20		23				10.86		1,262	No		43%	23	12	11	719	432	288		
	Pike - Retail	Shoreline Drive and Pine Ave				158		Retail		820	61%	39%	48%	52%								1.03		163				3.74		591	No	34%		163	99	63	591	284	307		
12.) Pine Villas	8th Street and Pine Ave, NEC	63					Apartment		221	20%	80%	66%	34%						0.47					30	0.58					37	Yes			0	0	0	0	0	12		
13.) Walker Building	401 N. Pine Ave			46	18		Hotel	Retail	310	61%	39%	53%	47%	820	61%	39%	48%	52%				0.56	1.03		44			0.61	3.74		95	Yes	34%		0	0	0	0	0	0	
14.) Newberry's	433 Pine Avenue	30					Apartment		221	20%	80%	66%	34%						0.47					14	0.58					17	No			14	3	11	17	11	6		
15.) D' Orsay Embassy Suites	201 Promenade (Boadway and Promenade)			230	10		Hotel	Retail	330	72%	28%	43%	57%	820	61%	39%	48%	52%				0.31	1.03		81			0.42	3.74		133	No	34%		81	57	24	133	59	74	
16.) Broadway School	Northeast corner of Broadway / Golden Ave					800	Elementary School		520	59%	41%	46%	54%										0.29	232					0.05	40	No			232	137	95	40	18	22		
17.) World Trade Center	Broadway between Golden Ave and Maine Ave		334		12		Condo	Retail	231	25%	75%	57%	43%	820	61%	39%	48%	52%		0.66			1.03		233		0.83		3.74		322	No	34%		233	63	170	322	180	143	
(a) Portions of pojects that were complete and occupied at the time of the traffic counts were not included as their trips would have been included in the existing intersection traffic volumes.																														Total Trips Generated						1,404	533	871	3,181	1,827	1,366
Notes: ¹ Source - ITE Trip Generation Manual, 6th Ed, 1997																																									
² Source - Caltran 11th Progress Report on Trip Ends Generation, 1976 (Elementarty school only)																																									
Source: City of Long Beach West Gateway Redevelopment Traffic Impact Report, Meyer, Mohaddes Associates (April 2003, Rev. November 2004).																																									

4.11.2.5 Project Traffic Generation

The first step in analyzing future traffic conditions with the Project is to estimate trip generation from the Project. Similar to the related projects in the previous chapter, the ITE Trip Generation rates were used to estimate future Project-related trips. Table 4.11-5 summarizes the trip estimates for each of the Project sites. The first Project phase is expected to generate 371 trips in the AM peak hour and 510 trips in the PM peak hour. The second Project phase is expected to generate an additional 100 AM peak hour trips and 127 PM peak hour trips. It should be noted that no trip reductions were taken into account for the existing land uses on the West Gateway site.

4.11.2.6 Project Trip Distribution

The routes people will use traveling to and from the project sites were determined based on the patterns of existing area traffic for similar types of developments and on patterns listed in previous traffic studies for the area. A summary of the development trip assignment trip assignments is presented in Figure 4.11-5 and in tabular form in the Traffic Report Appendix.

4.11.2.7 Project Access

The Project access for each of the sites was assumed to be primarily from the major east-west streets for the larger development sites and from the side streets, is possible, for the smaller sites. The access to and from Broadway and 3rd Street will be restricted to appropriate turn-in/turn-out only. For Site 1, some access could be provided along Golden and/or Maine Avenue. For Site 2, access could also be provided from Maine and/or Daisy Avenues. For Sites 3 through 7, all access was assumed to occur from the adjacent north-south streets.

4.11.2.8 Project Trip Assignment

The trips generated by the Project for both the 2007 and 2010 analysis periods were assigned to the area street system using the directional distribution described above. Because there are multiple access routes from the north, south, east, and west for each site, the access route used for each site was unique depending on its location. The gateway from which the project traffic was assigned is shown in Figure 4.11-5. The project trip assignment for Year 2007 is illustrated in Figure 4.11-6. The project trips assigned for Year 2010 are illustrated in Figure 4.11-7.

4.11.3 THRESHOLDS OF SIGNIFICANCE RELATED TO TRANSPORTATION AND CIRCULATION

Based on the City of Long Beach traffic Impact Guidelines, an impact is considered significant when the resulting level-of service with the project traffic is E or F and project related traffic contributes a V/C of 0.020 or more to the critical movements.

**TABLE 4.11-5
PROJECT TRIP GENERATION**

Project/Parcel	Location	Size					Density (res. Units/ac.)	ITE Rate Code	Trip Generation				Total Trips						
		Apt. Units	Condo Units	Retail Sq. Ft.	Acres	Total Sq. Ft			AM Rate	Total AM Trips	PM Rate	Total PM Trips	AM			PM			Daily
													Total Trips	Ins	Outs	Total Trips	Ins	Outs	
1). Jamboree	3 rd St. between Golden and Maine	64			1.01	43,996	63.00	223	0.30	19	0.39	25	19	6	13	25	15	11	424
2). Phase 2	3 rd St. between Maine and Daisy	49			0.98	42,689	50.00	231	0.66	32	0.83	41	32	8	24	41	23	18	287
3). Phase 2	Daisy Ave between 3 rd and 4 th	10			0.24	10,454	40.00	231	0.66	6	0.83	8	6	2	5	8	5	3	56
4). Phase 2	Daisy Ave between 3 rd and 4 th	35			0.70	30,492	50.00	231	0.66	23	0.83	29	23	6	17	29	17	12	205
5). Phase 2	Daisy Ave between 3 rd and 4th	13			0.32	13,939	40.00	231	0.66	8	0.83	11	8	2	6	11	6	5	75
6). Phase 2	Magnolia Ave between 3 rd and 4 th	10			0.25	10,890	40.00	231	0.66	7	0.83	8	7	2	5	8	5	3	59
7). Phase 2	Magnolia Ave between 3 rd and 4 th	37			0.73	31,799	50.00	231	0.66	24	0.83	30	24	6	18	30	17	13	214
9). Olson Co.	Broadway between Main and Daisy		190		2.42	105,415	79.00	231	0.66	125	0.83	158	125	31	94	158	90	68	1,113
10). Greystone	Broadway between Daisy and Magnolia		164		2.64	114,998	68.00	231	0.66	108	0.83	136	108	27	81	136	78	58	961
11). Lyon Reality	Broadway between Magnolia and Chestnut	345			3.38	147,233	102.00	223	0.30	104	0.39	135	104	32	72	135	78	57	2,287
Retail	Broadway between Magnolia and Chestnut			15				820	1.03	15	3.74	56	15	9	6	56	27	29	644

Notes: Phase 1 Developments to occur by 2005

Phase 2 Developments to occur by 2010

1 Source – ITE Trip Generation Manual, 6th Ed, 1997

Trips Generated = 456 121 335 581 333 248 5,681

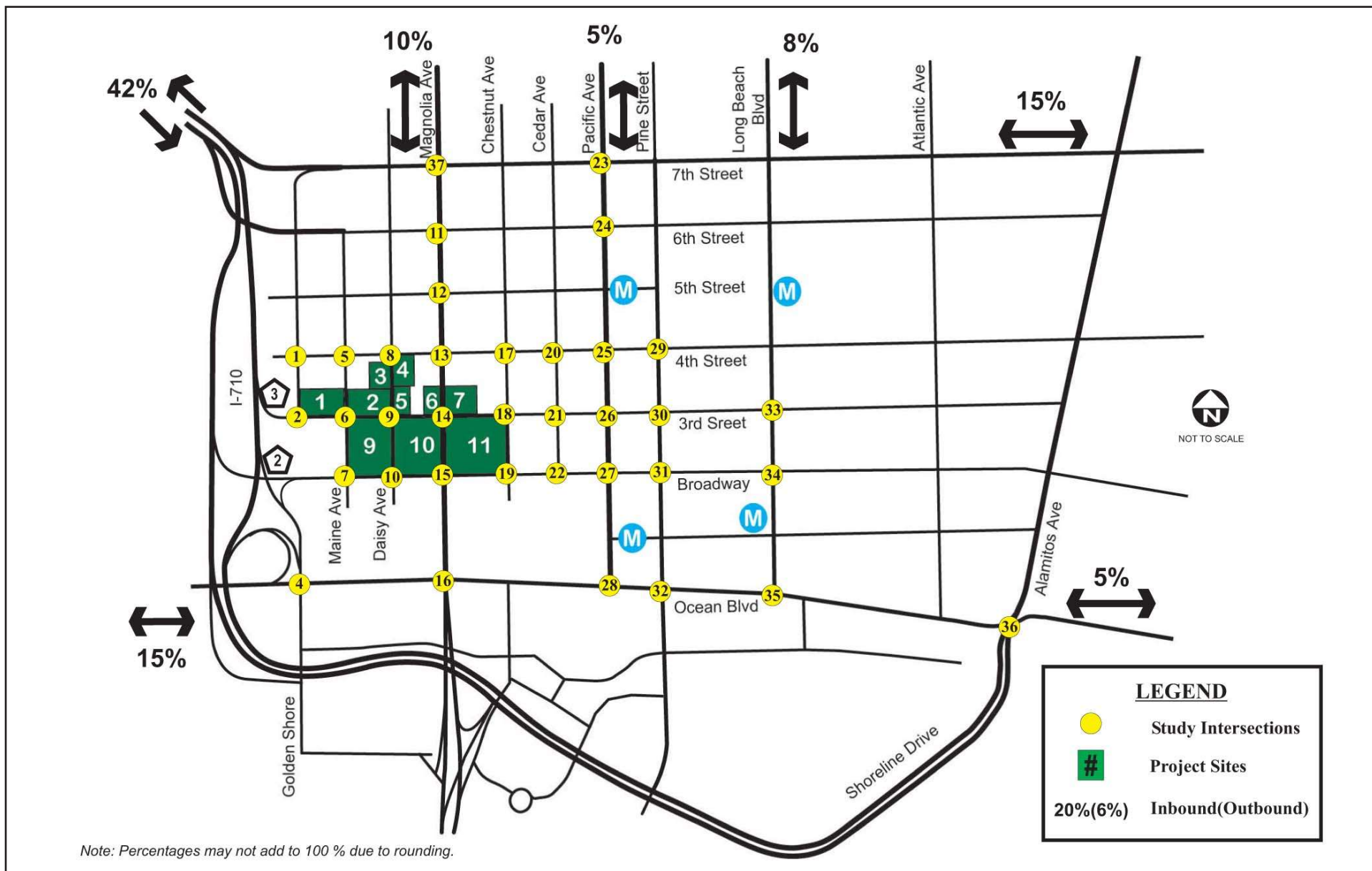


Figure 4.11-5
Project Trip Distribution

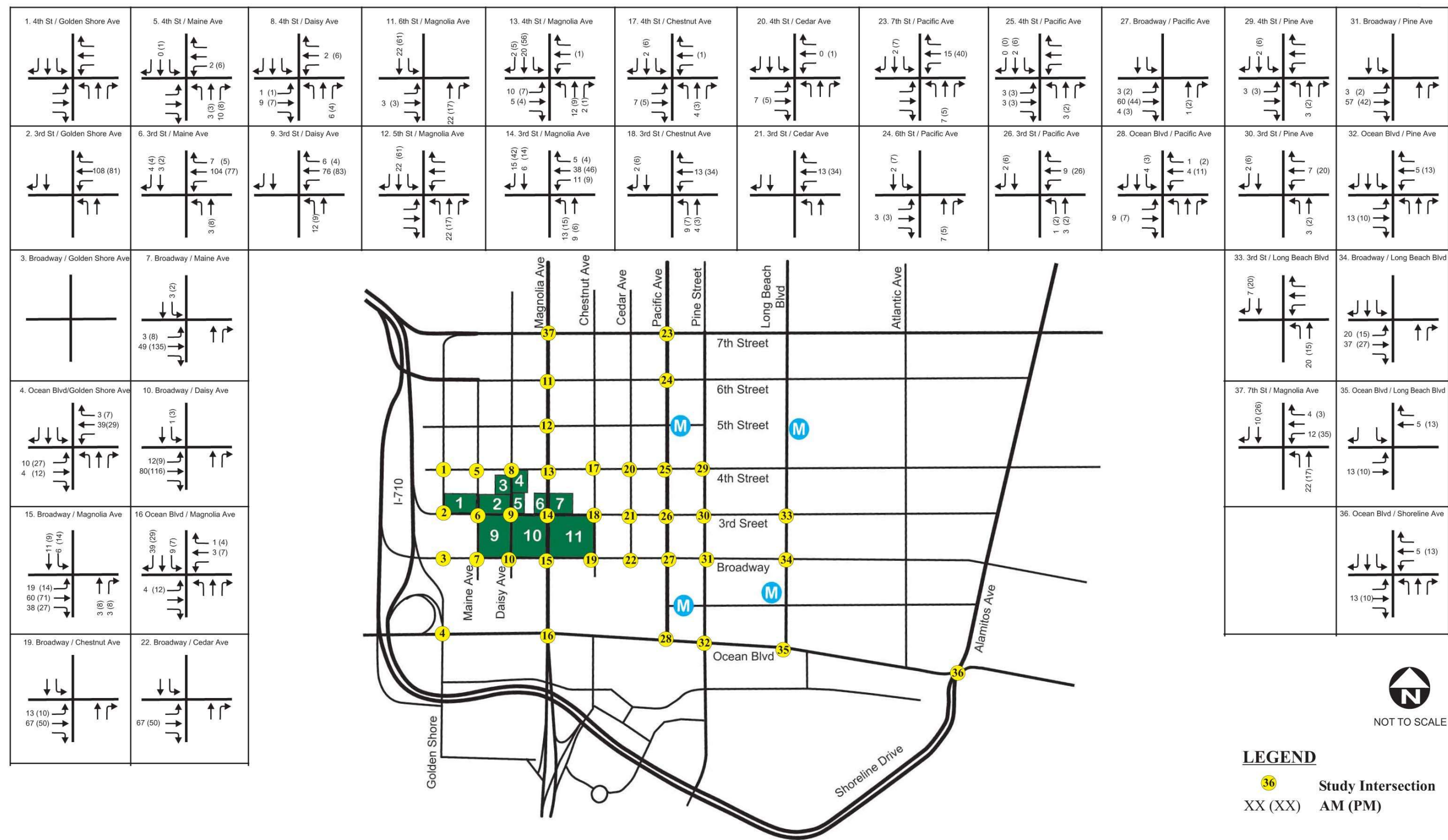


Figure 4.11-6
Year 2007 Project Peak-Hour Traffic Volumes

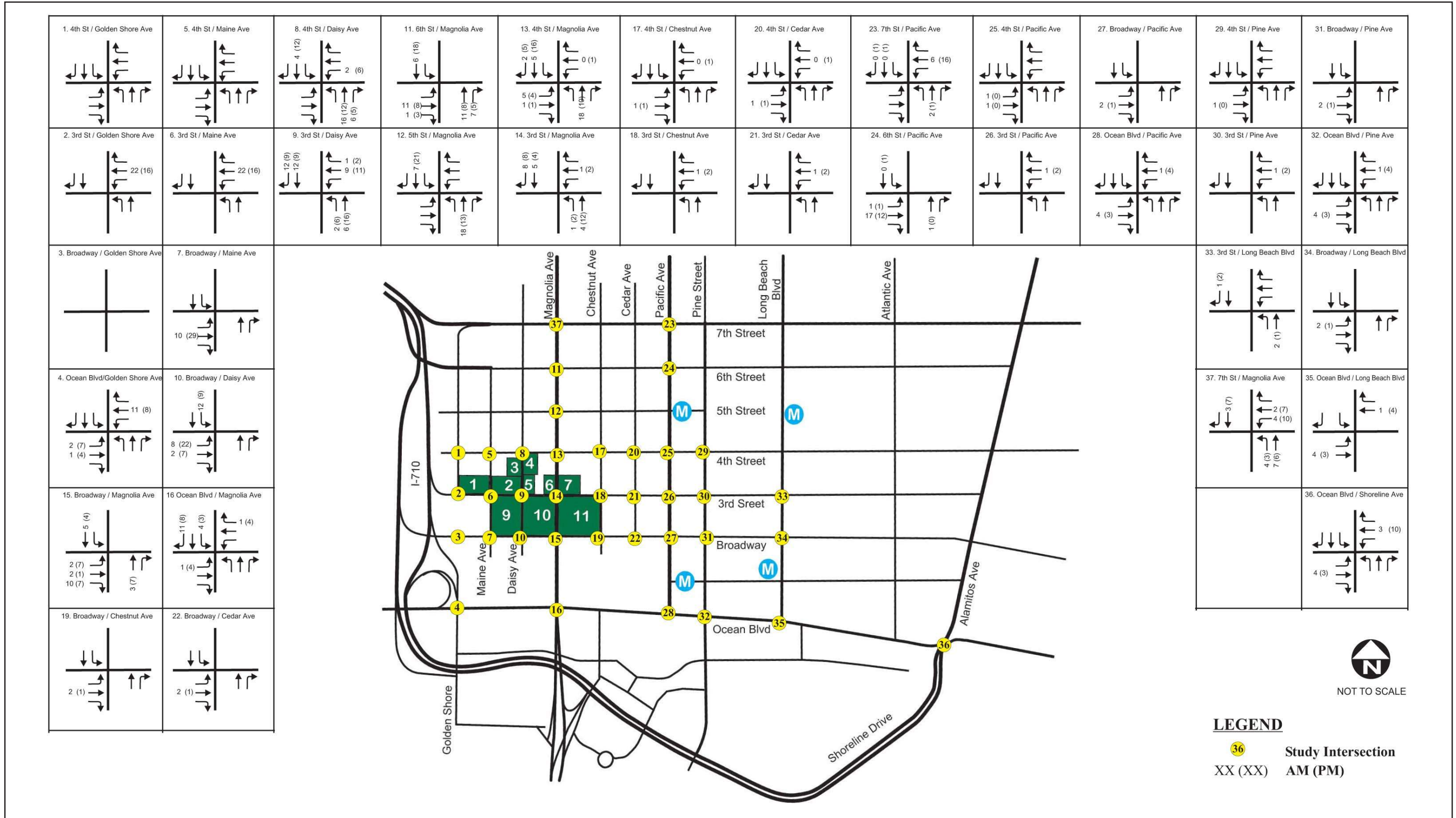


Figure 4.11-7
Year 2010 Project Peak-Hour Traffic Volumes

4.11.4 IMPACTS RELATED TO TRANSPORTATION AND CIRCULATION

This section discusses the 2007 and 2010 impacts of the proposed project. The year 2007 was assumed to represent project build-out. This section analyzes traffic conditions (levels of service) with and without the project, identifies traffic impacts based on a comparison of these conditions, and identifies the need for mitigation measures (if needed), which are described in a later section.

Level of service analyses were performed for study intersections using the methodologies described earlier in Section 4.11.2.2. Computational worksheets are provided in the Traffic Impact Report Appendices, which is available for review by appointment at the City of Long Beach Planning Department Offices located at 333 West Ocean Boulevard, 5th Floor Long Beach, CA 90802. LOS analyses are based on existing intersection lane configurations.

Project related traffic impacts were determined by comparing intersection levels of service with and without the project. Significant traffic impacts were identified based on the City's criteria for significant adverse project impacts previously discussed in Section 4.11.3, Thresholds of Significance Related to Transportation and Circulation.

After completion of the existing conditions data collection and analyses, the City of Long Beach installed traffic signals at the intersections of Maine Avenue with Broadway and 3rd Street. The traffic signals, installed as part of another area development project, mitigated the unacceptable existing operating condition at the Broadway and Maine intersection. Both intersections are analyzed in the Year 2007 and 2010 scenario as signalized intersections. The City has also committed to installing a traffic signal at the intersection of 3rd Street and Daisy as part of this project between 2007 and 2010. This traffic signal has therefore been included in the Year 2010 analysis.

4.11.4.1 Year 2007 No-Build Traffic Operations

The projection of Year 2007 No-Project traffic consists of existing traffic plus ambient traffic growth and traffic generated by the related projects, all of which were assumed to be completed by the Year 2007. The total Year 2007 No-Build traffic volumes are illustrated in Figure 4.11-8.

Based on these traffic forecasts, three study intersections, one that is currently operating at LOS E or F, are projected to be operating at LOS E or LOS F. The three intersections are:

- Ocean Boulevard and Pine Avenue (PM peak)
- Shoreline Drive and Ocean Boulevard
- 3rd Street and Daisy Avenue

In addition, peak-hour operations at three intersections, Ocean Boulevard and Golden Shore, Ocean Boulevard and Pacific Avenue, and Ocean Boulevard and Long Beach Boulevard would have one or both peak hours operating at LOS D. The remaining intersections would operate at LOS C or better. Table 4.11-6 summarizes the capacity analysis results.

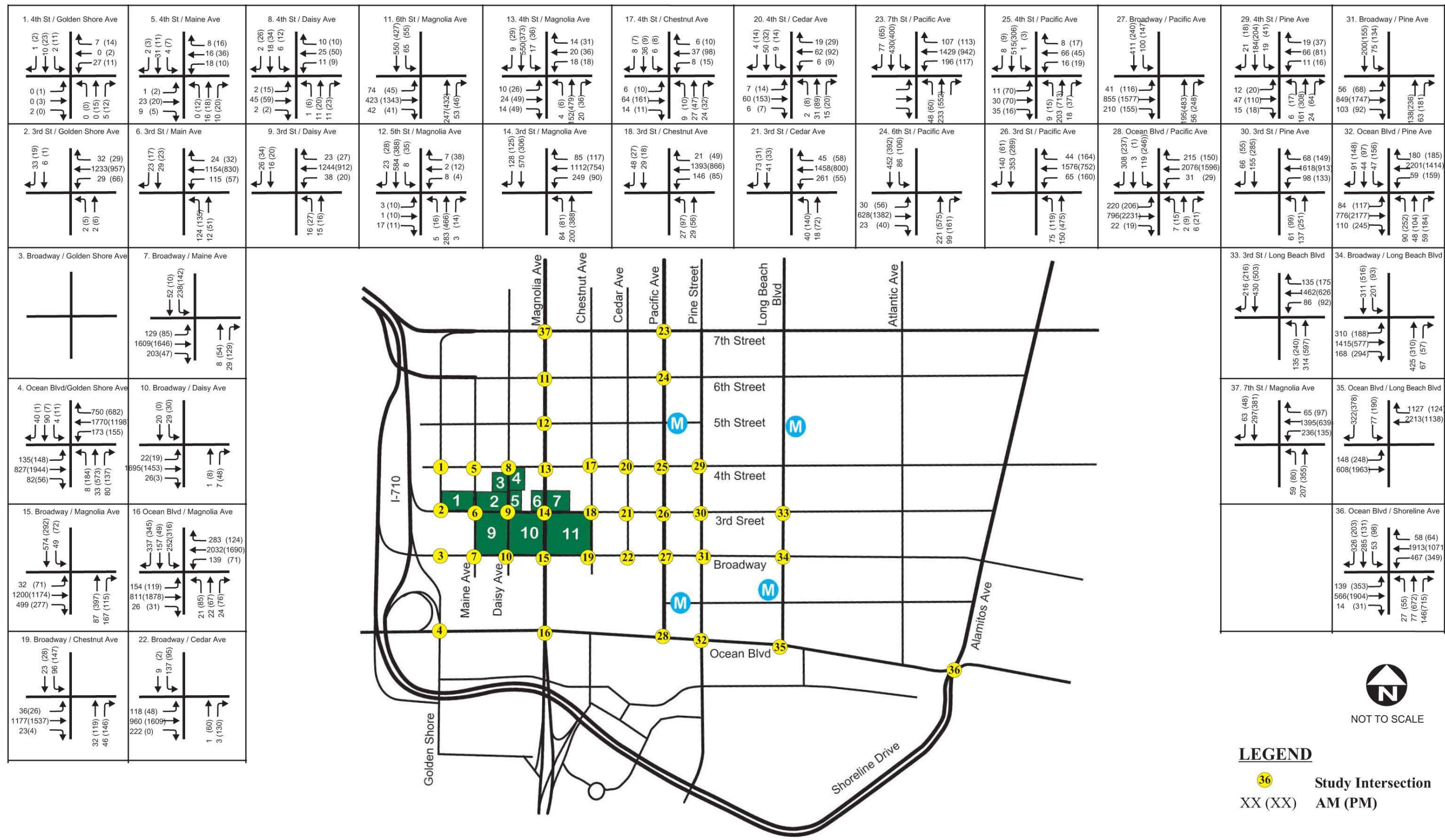


Figure 4.11-8
Year 2007 No-Build Peak-Hour Traffic Volumes

**TABLE 4.11-6
2007 NO BUILD INTERSECTION OPERATING CONDITIONS**

<i>Intersection</i>		2007 No-Build					
		AM Peak Hour			PM Peak Hour		
		<i>LOS</i>	<i>Avg Vehicle Delay</i>	<i>V/C Ratio</i>	<i>LOS</i>	<i>Avg Vehicle Delay</i>	<i>V/C Ratio</i>
1	4th Street & Golden Avenue	A	7.1	0.058	A	7.0	0.045
2	3rd Street & Golden Avenue	A	--	0.527	A	--	0.356
3	Ocean Boulevard & Golden Shore	A	--	0.553	D	--	0.861
4	4th Street & Maine Avenue	A	7.2	0.060	A	7.2	0.077
5	3rd Street & Maine Avenue	A	--	0.478	A	--	0.435
6	Broadway & Maine Avenue	A	--	0.472	A	--	0.513
7	4th Street & Daisy Avenue	A	7.2	0.065	A	7.6	0.104
8	3rd Street & Daisy Avenue	E	38.7	0	C	18.4	0
9	Broadway & Daisy Avenue	A	--	0.308	A	--	0.305
10	6th Street & Magnolia Avenue	A	--	0.480	B	--	0.649
11	5th Street & Magnolia Avenue	C	16.3	0	C	22.8	0
12	4th Street & Magnolia Avenue	A	--	0.430	A	--	0.461
13	3rd Street and Magnolia Avenue	B	--	0.663	A	--	0.493
14	Broadway & Magnolia Avenue	A	--	0.534	A	--	0.481
15	Ocean Boulevard & Magnolia Avenue	C	--	0.782	C	--	0.741
16	4th Street & Chestnut Avenue	B	10.2	0	B	11.6	0
17	3rd Street & Chestnut Avenue	A	--	0.452	A	--	0.317
18	Broadway & Chestnut Avenue	A	--	0.329	A	--	0.503
19	4th Street & Cedar Avenue	A	--	0.114	A	--	0.205
20	3rd Street & Cedar Avenue	A	--	0.542	A	--	0.337
21	Broadway & Cedar Avenue	A	--	0.336	A	--	0.458
22	7th Street & Pacific Avenue	B	--	0.660	A	--	0.550
23	6th Street & Pacific Avenue	A	--	0.434	C	--	0.742
24	4th Street & Pacific Avenue	A	--	0.399	A	--	0.474
25	3rd Street & Pacific Avenue	C	--	0.705	A	--	0.521
26	Broadway & Pacific Avenue	A	--	0.508	C	--	0.793
27	Ocean Boulevard & Pacific Avenue	D	--	0.808	C	--	0.702
28	4th Street & Pine Avenue	A	--	0.241	A	--	0.394
29	3rd Street & Pine Avenue	A	--	0.517	A	--	0.472
30	Broadway & Pine Avenue	A	--	0.405	C	--	0.778
31	Ocean Boulevard & Pine Avenue	B	--	0.660	E	--	0.967
32	3rd Street & Long Beach Boulevard	C	--	0.745	B	--	0.626
33	Broadway & Long Beach Boulevard	B	--	0.699	A	--	0.514
34	Ocean Boulevard & Long Beach Boulevard	B	--	0.694	D	--	0.850
35	Shoreline Drive & Ocean Boulevard	E	--	0.953	F	--	1.114
36	7th Street & Magnolia Avenue	B	--	0.647	A	--	0.532

Note: Average Vehicle Delay is in seconds.

Source: City of Long Beach West Gateway Redevelopment Traffic Impact Report, Meyer, Mohaddes Associates (April 2003, Rev. November 2004).

4.11.4.2 Year 2010 No-Build Traffic Operations

The projection of Year 2010 No-Build traffic consisted of existing traffic plus ambient traffic growth to the Year 2010 plus related projects plus Phase 1 project traffic. The total Year 2010 No-Build traffic volumes are illustrated in Figure 4.11-9. With these future traffic volumes, two study intersections would be operating at LOS E or F in the AM and/or PM peak hour. The two intersections are:

- Ocean Boulevard and Pine Avenue (PM peak)
- Shoreline Drive and Ocean Boulevard

In addition, peak hour operations at the seven intersections of Ocean Boulevard and Golden Shore, 5th Street and Magnolia Avenue, Ocean Boulevard and Magnolia Avenue, Broadway and Pacific Avenue, Ocean Boulevard and Pacific Avenue, and Ocean Boulevard and Long Beach Boulevard would have one or both peak hours operating at LOS D. The remaining intersections would operate at LOS C or better. Table 4.11-7 summarizes the level of service results.

4.11.4.3 Year 2007 With Project Traffic Operations

The total intersection volumes for the Year 2007 are illustrated in Figure 4.11-10. For the 2007 With- Project conditions, three study intersections are projected to be operating at LOS E or LOS F in the AM and/or PM peak hour. The three intersections are:

- Ocean Boulevard and Pine Avenue (PM peak)
- Shoreline Drive and Ocean Boulevard
- 3rd Street and Daisy Avenue (AM peak)

In addition, peak hour operations at the six intersections of Ocean Boulevard and Golden Shore, 5th Street and Magnolia Avenue, Ocean Boulevard and Magnolia Avenue, Broadway and Pacific Avenue, Ocean Boulevard and Pacific Avenue, and Ocean Boulevard and Long Beach Boulevard would operate at LOS D during one or both of the peak hours. The remaining intersections would operate at acceptable levels of service. Table 4.11-8 summarizes the level of service results.

Based on the City's significance criteria, the Project would have no significant impact at any of the study area's signalized intersections.

4.11.4.4 Year 2010 With Project Traffic Operations

The total intersection volumes for the Year 2010 are illustrated in Figure 4.11-11. For the 2010 With- Project conditions, the intersections of Ocean Boulevard with Pine Avenue and as Shoreline Drive with Ocean Boulevard will continue to operate at LOS E or LOS F in the AM and/or PM peak hour.

In addition, peak hour operations at the eight intersections of Ocean Boulevard and Golden Shore, 3rd Street and Daisy Avenue (AM), 5th Street and Magnolia Avenue, Ocean Boulevard and Magnolia Avenue, Broadway and Pacific Avenue, Ocean Boulevard and Pacific Avenue,

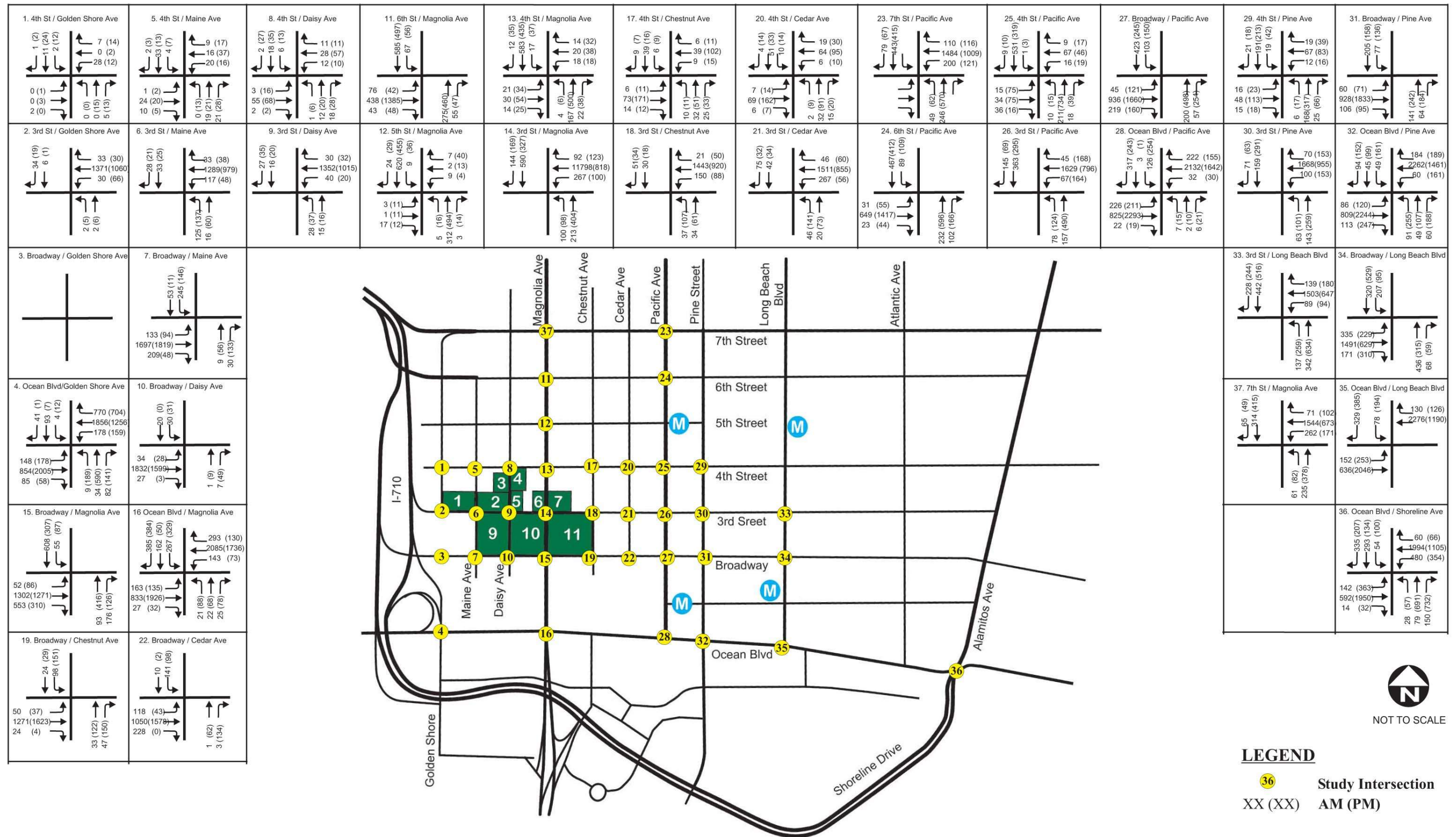


Figure 4.11-9
Year 2010 No-Build Peak-Hour Traffic Volumes

**TABLE 4.11-7
2010 NO BUILD INTERSECTION OPERATING CONDITIONS**

<i>Intersection</i>		2010 No-Build					
		AM Peak Hour			PM Peak Hour		
		<i>LOS</i>	<i>Avg Vehicle Delay</i>	<i>V/C Ratio</i>	<i>LOS</i>	<i>Avg Vehicle Delay</i>	<i>V/C Ratio</i>
1	4th Street & Golden Avenue	A	7.1	0.059	A	7.0	0.046
2	3rd Street & Golden Avenue	A	--	0.583	A	--	0.392
3	Ocean Boulevard & Golden Shore	A	--	0.580	D	--	0.887
4	4th Street & Maine Avenue	A	7.3	0.066	A	7.3	0.089
5	3rd Street & Maine Avenue	A	--	0.528	A	--	0.478
6	Broadway & Maine Avenue	A	--	0.496	A	0--	0.557
7	4th Street & Daisy Avenue	A	7.3	0.081	A	7.7	0.119
8	3rd Street & Daisy Avenue	A	--	0.423	A	--	0.332
9	Broadway & Daisy Avenue	A	--	0.334	A	--	0.333
10	6th Street & Magnolia Avenue	A	--	0.507	B	--	0.678
11	5th Street & Magnolia Avenue	C	17.5	0	C	26.8	0
12	4th Street & Magnolia Avenue	A	--	0.463	A	--	0.491
13	3rd Street and Magnolia Avenue	C	--	0.710	A	--	0.522
14	Broadway & Magnolia Avenue	A	--	0.583	A	--	0.525
15	Ocean Boulevard & Magnolia Avenue	D	--	0.831	C	--	0.780
16	4th Street & Chestnut Avenue	B	10.4	0	B	11.9	0
17	3rd Street & Chestnut Avenue	A	--	0.476	A	--	0.342
18	Broadway & Chestnut Avenue	A	--	0.354	A	--	0.529
19	4th Street & Cedar Avenue	A	--	0.117	A	--	0.214
20	3rd Street & Cedar Avenue	A	--	0.559	A	--	0.352
21	Broadway & Cedar Avenue	A	--	0.358	A	--	0.48
22	7th Street & Pacific Avenue	B	--	0.679	A	--	0.572
23	6th Street & Pacific Avenue	A	--	0.445	C	--	0.761
24	4th Street & Pacific Avenue	A	--	0.410	A	--	0.485
25	3rd Street & Pacific Avenue	C	--	0.723	A	--	0.538
26	Broadway & Pacific Avenue	A	--	0.532	D	--	0.821
27	Ocean Boulevard & Pacific Avenue	D	--	0.830	C	--	0.721
28	4th Street & Pine Avenue	A	--	0.257	A	--	0.403
29	3rd Street & Pine Avenue	A	--	0.532	A	--	0.488
30	Broadway & Pine Avenue	A	--	0.427	D	--	0.805
31	Ocean Boulevard & Pine Avenue	B	--	0.677	E	--	0.989
32	3rd Street & Long Beach Boulevard	C	--	0.761	B	--	0.638
33	Broadway & Long Beach Boulevard	C	--	0.722	A	--	0.524
34	Ocean Boulevard & Long Beach Boulevard	C	--	0.713	D	--	0.878
35	Shoreline Drive & Ocean Boulevard	E	--	0.981	F	--	1.145
36	7th Street & Magnolia Avenue	B	--	0.674	A	--	0.571

Note: Average Vehicle Delay is in seconds.

Source: City of Long Beach West Gateway Redevelopment Traffic Impact Report, Meyer, Mohaddes Associates (April 2003, Rev. November 2004).

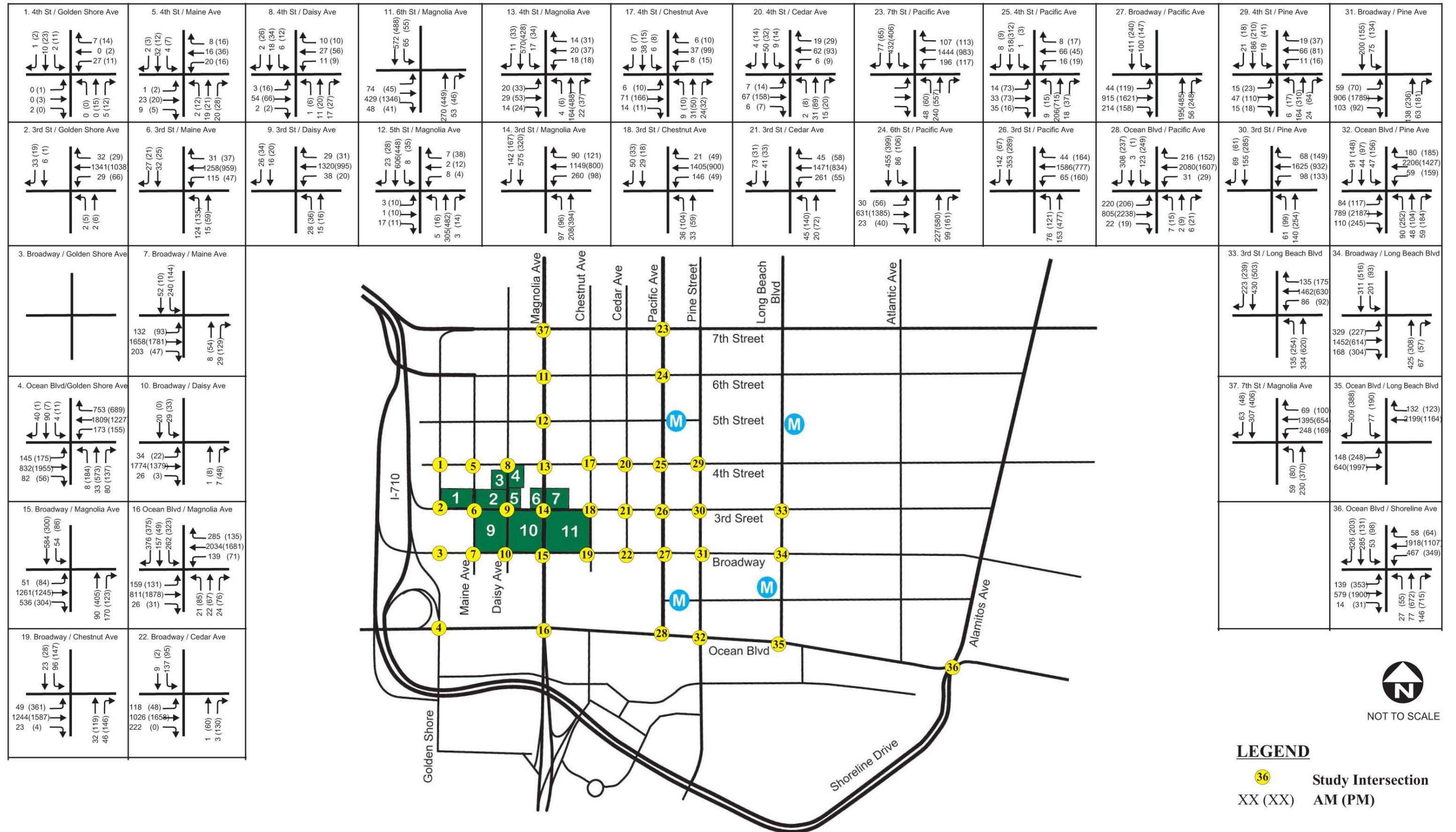


Figure 4.11-10
Year 2007 With-Project Peak-Hour Traffic Volumes

TABLE 4.11-8
2007 WITH PROJECT INTERSECTION OPERATING CONDITIONS

<i>Intersection</i>		Future w/2007 Redevelopment – Phase 1									
		AM Peak Hour					PM Peak Hour				
		LOS	Avg Vehicle Delay	With Proect. V/C	Without Project V/C	Diff.	LOS	Avg Vehicle Delay	V/C Ratio	Without Project V/C	Diff.
1	4th Street & Golden Avenue	A	7.1	0.058	0.058	0.00	A	7.0	0.045	0.045	0.00
2	3rd Street & Golden Avenue	A	--	0.570	0.527	0.04	A	--	0.384	0.356	0.03
3	Ocean Boulevard & Golden Shore	A	--	0.566	0.553	0.01	D	--	0.864	0.861	0.00
4	4th Street & Maine Avenue	A	7.23	0.064	0.060	0.00	A	7.3	0.086	0.077	0.01
5	3rd Street & Maine Avenue	A	--	0.517	0.478	0.04	A	--	0.469	0.435	0.03
6	Broadway & Maine Avenue	A	--	0.484	0.472	0.01	A	--	0.544	0.513	0.03
7	4th Street & Daisy Avenue	A	7.3	0.079	0.065	0.01	A	7.7	0.116	0.104	0.01
8	3rd Street & Daisy Avenue	E	41.5	0	0	0.00	C	19.7	0	0	0.00
9	Broadway & Daisy Avenue	A	--	0.323	0.308	0.02	A	--	0.326	0.305	0.02
10	6th Street & Magnolia Avenue	A	--	0.495	0.480	0.02	B	--	0.660	0.649	0.01
11	5th Street & Magnolia Avenue	C	17	0	0	0.00	D	25.6	0	0	0.00
12	4th Street & Magnolia Avenue	A	--	0.452	0.430	0.02	A	--	0.479	0.461	0.02
13	3rd Street and Magnolia Avenue	B	--	0.692	0.663	0.03	A	--	0.510	0.493	0.02
14	Broadway & Magnolia Avenue	A	--	0.563	0.534	0.03	A	--	0.513	0.481	0.03
15	Ocean Boulevard & Magnolia Ave.	D	--	0.811	0.782	0.03	C	--	0.754	0.741	0.01
16	4th Street & Chestnut Avenue	B	10.3	0	0	0.00	B	11.7	0	0	0.00
17	3rd Street & Chestnut Avenue	A	--	0.463	0.452	0.01	A	--	0.334	0.317	0.02
18	Broadway & Chestnut Avenue	A	--	0.346	0.329	0.02	A	--	0.516	0.503	0.01
19	4th Street & Cedar Avenue	A	--	0.114	0.114	0.00	A	--	0.209	0.205	0.00
20	3rd Street & Cedar Avenue	A	--	0.545	0.542	0.00	A	--	0.345	0.337	0.01
21	Broadway & Cedar Avenue	A	--	0.350	0.336	0.01	A	--	0.469	0.458	0.01
22	7th Street & Pacific Avenue	B	--	0.665	0.660	0.01	A	--	0.562	0.550	0.01
23	6th Street & Pacific Avenue	A	--	0.437	0.434	0.00	C	--	0.744	0.742	0.00
24	4th Street & Pacific Avenue	A	--	0.402	0.399	0.00	A	--	0.476	0.474	0.00
25	3rd Street & Pacific Avenue	C	--	0.708	0.705	0.00	A	--	0.528	0.521	0.01
26	Broadway & Pacific Avenue	A	--	0.523	0.508	0.02	D	--	0.804	0.793	0.01
27	Ocean Boulevard & Pacific Ave.	D	--	0.809	0.808	0.00	C	--	0.704	0.702	0.00
28	4th Street & Pine Avenue	A	--	0.251	0.241	0.01	A	--	0.394	0.394	0.00
29	3rd Street & Pine Avenue	A	--	0.519	0.517	0.00	A	--	0.477	0.472	0.01
30	Broadway & Pine Avenue	A	--	0.418	0.405	0.01	C	--	0.787	0.778	0.01
31	Ocean Boulevard & Pine Ave.	B	--	0.661	0.660	0.00	E	--	0.969	0.967	0.00
32	3rd Street & Long Beach Blvd.	C	--	0.750	0.745	0.01	B	--	0.626	0.626	0.00
33	Broadway & Long Beach Blvd.	C	--	0.707	0.699	0.01	A	--	0.515	0.514	0.00
34	Ocean Blvd & Long Beach Blvd	B	--	0.695	0.694	0.00	D	--	0.855	0.850	0.01
35	Shoreline Drive & Ocean Blvd.	E	--	0.955	0.953	0.00	F	--	1.118	1.114	0.00
36	7th Street & Magnolia Avenue	B	--	0.657	0.647	0.01	A	--	0.557	0.532	0.03

Note: Average Vehicle Delay is in seconds.

Source: City of Long Beach West Gateway Redevelopment Traffic Impact Report, Meyer, Mohaddes Associates (April 2003, Rev. November 2004).

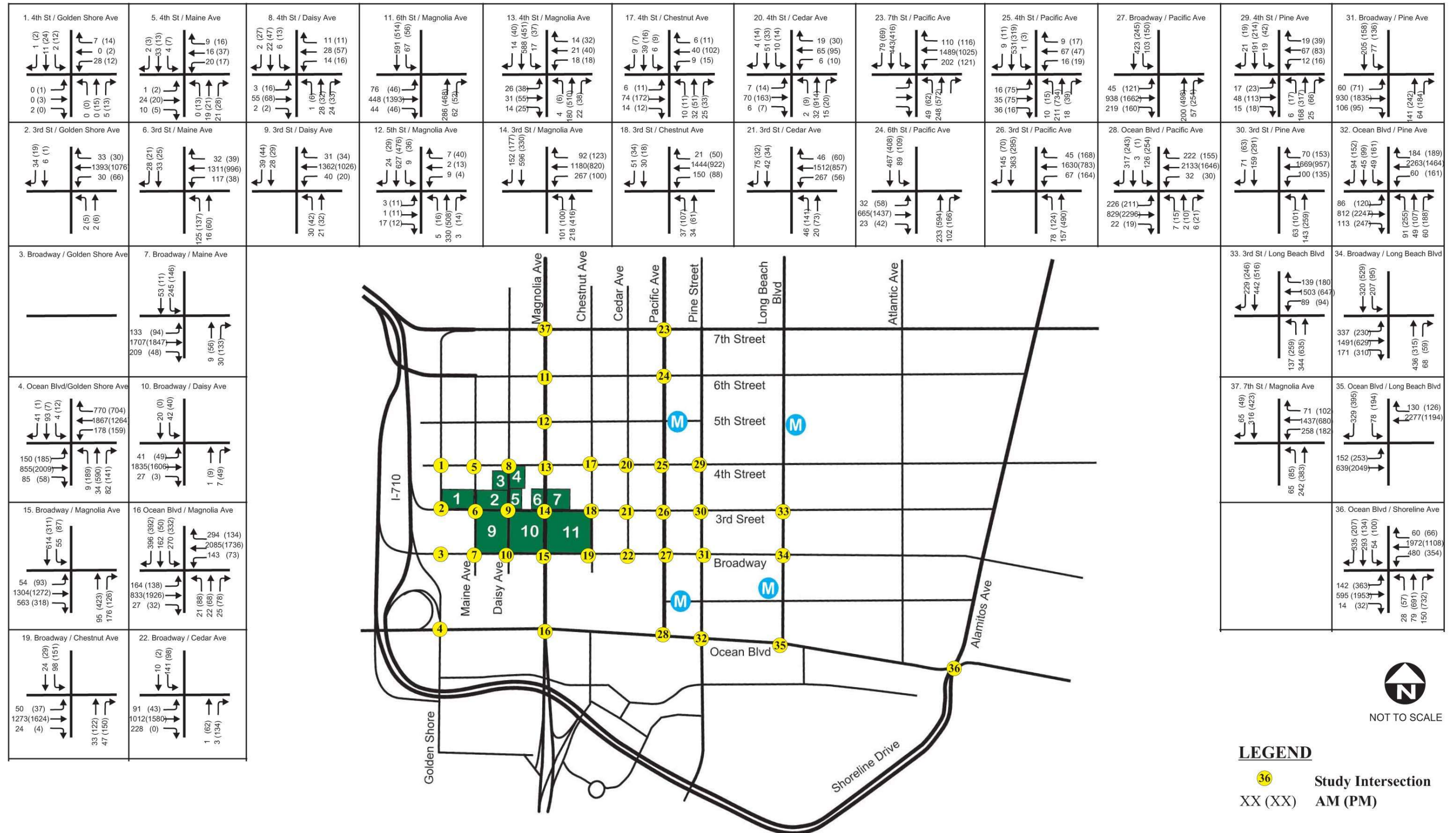


Figure 4.11-11
Year 2010 With-Project Peak-Hour Traffic Volumes

and Pine Avenue, and Ocean Boulevard and Long Beach Boulevard would have one or both peak hours operating at LOS D. The remaining intersections would operate at LOS C or better. Table 4.11-9 summarizes the level of service results.

Based on the City's significance criteria, the Project would have no significant impact at any of the study area's signalized intersections.

**TABLE 4.11-9
2010 WITH PROJECT INTERSECTION OPERATING CONDITIONS**

<i>Intersection</i>		Future w/2010 Redevelopment – Phase 2									
		AM Peak Hour					PM Peak Hour				
		LOS	Avg Vehicle Delay	With Project V/C	Without Project V/C	Diff.	LOS	Avg Vehicle Delay	V/C Ratio	Without Project V/C	Diff.
1	4th Street & Golden Avenue	A	7.1	0.059	0.059	0.00	A	7.0	0.046	0.046	0.00
2	3rd Street & Golden Avenue	A	--	0.591	0.583	0.01	A	--	0.398	0.392	0.01
3	Ocean Boulevard & Golden Shore	A	--	0.583	0.580	0.00	D	--	0.880	0.887	-0.01
4	4th Street & Maine Avenue	A	7.3	0.066	0.066	0.00	A	7.3	0.089	0.089	0.00
5	3rd Street & Maine Avenue	A	--	0.535	0.528	0.01	A	--	0.484	0.478	0.01
6	Broadway & Maine Avenue	A	--	0.498	0.496	0.00	A	--	0.563	0.557	0.01
7	4th Street & Daisy Avenue	A	7.4	0.083	0.081	0.00	A	7.8	0.123	0.119	0.00
8	3rd Street & Daisy Avenue	A	--	0.446	0.423	0.02	A	--	0.341	0.332	0.01
9	Broadway & Daisy Avenue	A	--	0.343	0.334	0.01	A	--	0.343	0.333	0.01
10	6th Street & Magnolia Avenue	A	--	0.514	0.507	0.01	B	--	0.688	0.678	0.01
11	5th Street & Magnolia Avenue	C	18.0	0	0	0.00	D	28.4	0	0	0.00
12	4th Street & Magnolia Avenue	A	--	0.478	0.463	0.02	A	--	0.495	0.491	0.00
13	3rd Street and Magnolia Avenue	C	--	0.716	0.710	0.01	A	--	0.531	0.522	0.01
14	Broadway & Magnolia Avenue	A	--	0.591	0.583	0.01	A	--	0.529	0.525	0.00
15	Ocean Boulevard & Magnolia Ave.	D	--	0.839	0.831	0.01	C	--	0.785	0.780	0.01
16	4th Street & Chestnut Avenue	B	10.4	0	0	0.00	B	11.9	0	0	0.00
17	3rd Street & Chestnut Avenue	A	--	0.476	0.476	0.00	A	--	0.342	0.342	0.00
18	Broadway & Chestnut Avenue	A	--	0.355	0.354	0.00	A	--	0.529	0.529	0.00
19	4th Street & Cedar Avenue	A	--	0.118	0.117	0.00	A	--	0.215	0.214	0.00
20	3rd Street & Cedar Avenue	A	--	0.559	0.559	0.00	A	--	0.353	0.352	0.00
21	Broadway & Cedar Avenue	A	--	0.359	0.358	0.00	A	--	0.480	0.480	0.00
22	7th Street & Pacific Avenue	B	--	0.680	0.679	0.00	A	--	0.577	0.572	0.01
23	6th Street & Pacific Avenue	A	--	0.449	0.445	0.00	C	--	0.763	0.761	0.00
24	4th Street & Pacific Avenue	A	--	0.410	0.410	0.00	A	--	0.486	0.485	0.00
25	3rd Street & Pacific Avenue	C	--	0.723	0.723	0.00	A	--	0.538	0.538	0.00
26	Broadway & Pacific Avenue	A	--	0.532	0.532	0.00	D	--	0.821	0.821	0.00
27	Ocean Boulevard & Pacific Ave.	D	--	0.830	0.830	0.00	C	--	0.722	0.721	0.00
28	4th Street & Pine Avenue	A	--	0.258	0.257	0.00	A	--	0.403	0.403	0.00
29	3rd Street & Pine Avenue	A	--	0.532	0.532	0.00	A	--	0.488	0.488	0.00
30	Broadway & Pine Avenue	A	--	0.428	0.427	0.00	D	--	0.806	0.805	0.00
31	Ocean Boulevard & Pine Ave.	B	--	0.677	0.677	0.00	E	--	0.990	0.989	0.00
32	3rd Street & Long Beach Blvd.	C	--	0.761	0.761	0.00	B	--	0.638	0.638	0.00
33	Broadway & Long Beach Blvd.	C	--	0.722	0.722	0.00	A	--	0.524	0.524	0.00
34	Ocean Blvd & Long Beach Blvd	C	--	0.713	0.713	0.00	D	--	0.879	0.878	0.00
35	Shoreline Drive & Ocean Blvd.	E	--	0.981	0.981	0.00	F	--	1.146	1.145	0.00
36	7th Street & Magnolia Avenue	B	--	0.680	0.674	0.01	A	--	0.582	0.571	0.01

Note: Average Vehicle Delay is in seconds.

Source: City of Long Beach West Gateway Redevelopment Traffic Impact Report, Meyer, Mohaddes Associates (April 2003, Rev. November 2004).

4.11.4.5 Impacts at Unsignalized Intersections

Since the City of Long Beach does not have official criteria to determine significant traffic impact at a stop-controlled intersection, a review of the unsignalized intersections near the Project was performed to determine the relative increase in delay for the purpose of significant impact determination. As previously discussed, there are six unsignalized intersections in the study area. Of those six, only the 3rd Street and Daisy Avenue intersection operates at LOS E or F in Year 2007 after the development of the Project. By Year 2010, this intersection will be signalized. A comparison of the No-Build and With-Project delays is shown in Table 4.11-10.

**TABLE 4.11-10
INCREASE IN DELAY AT UNSIGNALIZED STUDY AREA
INTERSECTIONS**

Intersection	Year 2007			
	No-Build	With-Project	Diff.	% Increase
3rd Street/Daisy Avenue				
<i>AM Peak Hour</i>	38.7	41.5	2.8	7.2%
<i>PM Peak Hour</i>	18.4	19.7	1.3	7.1%

Source: City of Long Beach West Gateway Redevelopment Traffic Impact Report, Meyer, Mohaddes Associates (April 2003, Rev. November 2004).

4.11.5 CONSTRUCTION TRAFFIC IMPACTS

The initial estimates of construction traffic for the West Gateway project were developed based on several assumptions. These included that each development within the project would be constructed independently of each other and that the large sites in the Phase One portion of the development would likely not be started simultaneously, however there may be overlap in the construction of each site with multiple sites being in different phases of their respective construction process simultaneously.

The following provides a brief summary of the projected construction traffic the project. The project construction steps assumed were demolition, grading, excavation, and construction. For demolition, approximately 10 trips per day per site would likely be generated. For grading approximately 13 trips per day per site would be generated. If all excavation were performed using single 10-yard dumps, approximately 200 truck trips per day would be produced over a period of about 101 days for all three sites combined. Finally, approximately 312 construction trips would be generated during the building steps of the project. No specific length of time was identified for the non-excavation steps of the project. It should be noted that the smallest dump truck size was assumed for site excavation (single-unit, 10-yard capacity). If larger trucks are used, such as trucks with pup trailers or larger tractor-trailer dump units, the number of daily trip could be significantly reduced.

Large construction truck trips for the projects will occur outside of the peak hours along routes approved by the City of Long Beach for such traffic. Trucks will likely approach the sites using I-710 and Broadway to enter the sites and 3rd Street back to I-170 to exit. Worker trips will predominantly occur before the morning and evening peak hours based on the typical work schedules of other recent projects in the surrounding area. The projected daily trip generation after project completion for each of the proposed sites within in the West Gateway project will be significantly greater than the estimated construction traffic. In addition, none of the construction truck traffic will be occurring on evenings or weekends.

With proximate access to the area highway system and the good level of service projected on the adjacent arterial streets, the construction traffic generated by the West Gateway project should have no significant traffic impact on the adjacent street system, even if multiple sites within the project are developed simultaneously.

4.11.6 CONGESTION MANAGEMENT PROGRAM SYSTEM ANALYSIS

The Congestion Management Program (CMP) was created statewide as a result of Proposition 111 and has been implemented locally by the Los Angeles County Metropolitan Transportation Authority (LACMTA). The CMP for Los Angeles County requires that the traffic impact individual development projects of potential regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system. A total of 164 intersections are identified for monitoring on the system in Los Angeles County. This section describes the analysis of project-related impacts on the CMP system. The analysis has been conducted according to the guidelines set forth in the 2002 Congestion Management Program for Los Angeles County.

4.11.6.1 CMP Intersection Analysis

The intersection of Ocean Boulevard with Alamitos Boulevard is the only study area intersection that is part of the CMP Arterial monitoring locations. For purposes of the CMP, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by two percent of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$). If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by two percent of capacity ($V/C \geq 0.02$). The results of the capacity analysis indicate that the project will increase demand at the intersection by one percent or less (≥ 0.01). Therefore, the project will not have a significant CMP impact at the intersection.

4.11.6.2 CMP Mainline Freeway Segment Analysis

The focus of this analysis is to determine whether project related trips would significantly impact the freeway system according to CMP guidelines and threshold of significance. For purposes of analyzing the mainline freeway impact of the project, the nearest freeway monitoring station is located along the I-710 Freeway. Table 12 summarizes the project added trips by time period, direction and location. The project added trips were compared with CMP Traffic Impact Analysis guidelines to determine if additional traffic impact analysis is needed at the freeway monitoring station.

As shown in Table 4.11-11, the proposed project does not contribute more than minimum threshold of 150 peak-period trips at any CMP mainline location. Based on CMP criteria described previously, detailed impact analysis is not warranted.

**TABLE 4.11-11
PROJECT ADDED TRIPS AT FREEWAY MONITORING STATIONS**

Freeway Analysis Segment	Project Added Trips By Direction		Traffic Impact Analysis Required?	
	NB	SB	NB	SB
<i>Weekday AM Peak Hour</i>				
I-710 Freeway south of Anaheim Street	51	140	No	No
<i>Weekday PM Peak Hour</i>				
I-710 Freeway south of Anaheim Street	140	104	No	No

Source: City of Long Beach West Gateway Redevelopment Traffic Impact Report, Meyer, Mohaddes Associates (April 2003, Rev. November 2004).

4.11.7 MITIGATION AND TRANSPORTATION SYSTEM IMPROVEMENT RECOMMENDATIONS

Improvements to the area transportation system are proposed as part of the Project and as part of other area projects previously approved by the City of Long Beach. The following discusses these improvements and proposed project mitigation measures.

4.11.7.1 Installed Traffic Improvements

As previously noted, the traffic signals at the intersections of Maine Avenue with Broadway and 3rd Street were installed by the City of Long Beach after the collection of the Existing Conditions data. The traffic signals have mitigated the unacceptable operating conditions at the Broadway and Maine intersection. The traffic signal also assists with pedestrian movement at the intersections. This operational improvement from the existing condition is due to the fact that with the installation of the traffic signals, the intersections operate efficiently and critical movements of the intersection can be prioritized by dedicating the most “green” time to the highest volume movement.

4.11.7.2 Pedestrian Safety Project Improvement

As part of the improvement of the proposed West Gateway Project, a traffic signal at the intersection of 3rd Street and Daisy Avenue will be installed to complete the traffic signal grid in this area. Providing a traffic signal at this location would reduce traffic delays and provide for a more controlled pedestrian crossing at this intersection. The timing of installation of this improvement will be based on a monitoring of traffic and pedestrian flows compared to established traffic signal warrants as various phases of the project are constructed. While a traffic signal would not be required to mitigate Project-related impacts based on the City standards, it should be considered as a traffic control measure for enhanced pedestrian safety.

Year 2007 Mitigation Measures

No mitigation measures would be required for the first phase of the Project.

Year 2010 Mitigation Measures

No mitigation measures would be required for the second phase of the Project.

**4.11.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION RELATED TO
TRANSPORTATION AND CIRCULATION**

Implementation of the project would not have any potential significant transportation and circulation impacts, and therefore no mitigation is needed.